

# Receiving Report

Date: 13/12/17  
 Supplier: THYGO

Batch No: 14126301  
 Dart P/O: 20531

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☐ No ☒  
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☐ No ☒ N/A ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QC6 Inspection DAS ☒ N/A ☐  
 Work Order 16 13/07/18 N/A ☒  
 9-83

## Discrepancies

Part Number	Description

Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

Production/Admin: 13/12/17  
 Date    
 Received/Costing    
 Initial  

Location



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO20531**

Purchase Order Date 7/11/2013

PO Print Date 7/11/2013

Page Number 1 of 4

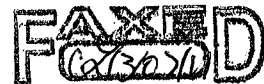
**Order From :**

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA



**Contact Name**

**Vendor Phone** 905 669 9444

**Ship To Contact**

**Ship To Phone**

**Ship Via:** Yours ppd

**Ship Acct:**

**Buyer**

Chantal Lavoie

**Customer POID**

**Customer Tax #** 10127-2607

**Terms**

Net 30

**Currency**

CAD

**FOB**

Destination-Collect

*M 126 357*

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	List Price	Disc %	Discounted Unit Price	Extended Price
1	M6061T6B0.375X01.000  MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221	6061T6 BAR .375 x 1.00	7/18/2013 Yes 7/18/2013		36.00 f				\$30.00
Line Total:									\$30.00
2	M6061T6B0.500X02.500  SAME AS ABOVE	6061-T6 Bar .500 x 2.50	7/18/2013 Yes 7/18/2013		12.00 f				\$34.20
Line Total:									\$34.20
3	M6061T6B0.500X10.000  SAME AS ABOVE	6061-T6 Bar .500 x 10.00	7/18/2013 Yes 7/18/2013		12.00 f				\$134.90

Note:

7/11/2013

*on Sample*

*LINE 11 NEW PO*

*93/1/17*



Dart Aerospace Ltd.  
1270 Aberdeen Street  
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## PURCHASE ORDER

Purchase Order ID **PO20531**

Purchase Order Date 7/11/2013

PO Print Date 7/11/2013

Page Number 2 of 4

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

**Line Total:** **\$134.90**

4	M6061T6B0.750X01.000	6061-T6 Bar .750 x 1.00	7/18/2013	24.00	✓	\$41.80	✓
			Yes	f			
	SAME AS ABOVE		7/18/2013				

**Line Total:** **\$41.80**

5	M6061T6B0.750X01.500	6061-T6 Bar .750 X 1.50	7/18/2013	12.00	✓	\$30.40	✓
			Yes	f			
	SAME AS ABOVE		7/18/2013				

**Line Total:** **\$30.40**

6	M6061T6B1.000X04.000	6061-T6 Bar 1.00 x 4.00	7/18/2013	48.00	✓	\$429.40	✓
			Yes	f			
	SAME AS ABOVE		7/18/2013				

**Line Total:** **\$429.40**

**Note:**

7/11/2013



Dart Aerospace Ltd.  
1270 Aberdeen Street  
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## PURCHASE ORDER

Purchase Order ID **PO20531**

Purchase Order Date 7/11/2013

PO Print Date 7/11/2013

Page Number 3 of 4

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

7	M6061T6B1.000X06.000	6061T6 BAR 1.00 X 6.00	7/18/2013	12.00	\$163.40
			Yes	f	
	SAME AS ABOVE		7/18/2013		

**Line Total:** \$163.40

8	M6061T6B1.000X12.000	6061-T6 Bar 1.00 x 12.00	7/18/2013	12.00	\$321.10
			Yes	f	
	SAME AS ABOVE		7/18/2013		

**Line Total:** \$321.10

9	M6061T6B30000X01.500	6061-T6 Bar 3.00 x 1.50	7/18/2013	12.00	\$119.70
			Yes	f	
	SAME AS ABOVE		7/18/2013		

**Line Total:** \$119.70

**Note:**

7/11/2013



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
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## PURCHASE ORDER

Purchase Order ID **PO20531**

Purchase Order Date 7/11/2013

PO Print Date 7/11/2013

Page Number 4 of 4

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

10	M6061T6B4.500X4.500	6061-T6 AluminumBar 4.500" X 4.500"	7/18/2013	8.00	\$384.00
	SAME AS ABOVE		No 7/18/2013	f	

*8/13/13*  
**Line Total:** \$384.00

**PO Total:** \$1,688.90

*CL. n*  
**Note:** Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.  
No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required - YES NO

**Change Nbr:** 1 **Change Date:** 7/11/2013



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO20531**

Purchase Order Date 11/07/2013

PO Print Date 17/07/2013

Page Number 4 of 4

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

10	M6061T6B4.500X4.500	6061-T6 AluminumBar 4.500" X 4.500"	18/07/2013	8.00	\$384.00
			No	f	
	SAME AS ABOVE		18/07/2013		

**Line Total:** \$384.00

11	M6061T6B0.500X12.000	6061-T6 Bar .500 x 12.00	22/07/2013	12.00	\$134.90
			Yes	f	
			22/07/2013		

\*\*\*NOTE\*\*\*  
Specifications same as line #1.  
\*\*\*\*\*

43/7/17

**Line Total:** \$134.90

**PO Total:** \$1,823.80

**Note:** Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.  
No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required - YES NO

**Change Nbr:** 2 **Change Date:** 17/07/2013



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO20531**

Purchase Order Date 11/07/2013

PO Print Date 17/07/2013

Page Number 1 of 4

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444

**Ship To Contact**  
**Ship To Phone**

**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	List Price	Disc %	Discounted Unit Price	Extended Price
1	M6061T6B0.375X01.000  MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221	6061T6 BAR .375 x 1.00	18/07/2013 Yes 18/07/2013		36.00 f				\$30.00
<b>Line Total:</b>									<b>\$30.00</b>
2	M6061T6B0.500X02.500  SAME AS ABOVE	6061-T6 Bar .500 x 2.50	18/07/2013 Yes 18/07/2013		12.00 f				\$34.20
<b>Line Total:</b>									<b>\$34.20</b>
3	M6061T6B0.500X10.000  SAME AS ABOVE	6061-T6 Bar .500 x 10.00	18/07/2013 Yes 18/07/2013		12.00 f				\$134.90

**Note:**

17/07/2013



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

**Purchase Order ID PO20531**

**Purchase Order Date 11/07/2013**

**PO Print Date 17/07/2013**

**Page Number 2 of 4**

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

**Line Total: \$134.90**

4	M6061T6B0.750X01.000	6061-T6 Bar .750 x 1.00	18/07/2013	24.00	\$41.80
			Yes	f	
	SAME AS ABOVE		18/07/2013		

**Line Total: \$41.80**

5	M6061T6B0.750X01.500	6061-T6 Bar .750 X 1.50	18/07/2013	12.00	\$30.40
			Yes	f	
	SAME AS ABOVE		18/07/2013		

**Line Total: \$30.40**

6	M6061T6B1.000X04.000	6061-T6 Bar 1.00 x 4.00	18/07/2013	48.00	\$429.40
			Yes	f	
	SAME AS ABOVE		18/07/2013		

**Line Total: \$429.40**

**Note:**

17/07/2013





Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

**Purchase Order ID PO20531**

**Purchase Order Date 11/07/2013**

**PO Print Date 17/07/2013**

**Page Number 3 of 4**

**Order From :** VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 905 669 9444

**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** Yours ppd  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

7	M6061T6B1.000X06.000	6061T6 BAR 1.00 X 6.00	18/07/2013	12.00	\$163.40
			Yes	f	
	SAME AS ABOVE		18/07/2013		

**Line Total: \$163.40**

8	M6061T6B1.000X12.000	6061-T6 Bar 1.00 x 12.00	18/07/2013	12.00	\$321.10
			Yes	f	
	SAME AS ABOVE		18/07/2013		

**Line Total: \$321.10**

9	M6061T6B30000X01.500	6061-T6 Bar 3.00 x 1.50	18/07/2013	12.00	\$119.70
			Yes	f	
	SAME AS ABOVE		18/07/2013		

**Line Total: \$119.70**

**Note:**

17/07/2013

# Purchase Order Receipt Listing

Wednesday, July 17, 2013 1:51:52 PM

All amounts are calculated in domestic currency.

All Vendors PO ID PO20531 Receipt Dates from 7/17/2013 to 7/17/2013 All Line Item Types

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID \ Vendor Name VC-COP001 Thyssenkrupp Materials CA Ltd											
PO20531	1		M6061T6B0.375X01.f 000		7/18/2013	7/17/2013	36.0000	\$0.79	0.0000	0	\$28.52
CAD	No		6061T6 BAR .375 x f 1.00 m126351		36.0000	DES102		\$28.52	0.0000	0	
	2		M6061T6B0.500X02.f 500		7/18/2013	7/17/2013	12.0000	\$2.71	0.0000	0	\$32.52
	No		6061-T6 Bar .500 x f 2.50 m126351		12.0000	DES102		\$32.52	0.0000	0	
	3		M6061T6B0.500X10.f 000		7/18/2013	7/17/2013	12.0000	\$10.69	0.0000	0	\$128.26
	No		6061-T6 Bar .500 x f 10.00 m126351		12.0000	DES102		\$128.26	0.0000	0	
	4		M6061T6B0.750X01.f 000		7/18/2013	7/17/2013	24.0000	\$1.66	0.0000	0	\$39.74
	No		6061-T6 Bar .750 x f 1.00 m126351		24.0000	DES102		\$39.74	0.0000	0	
	5		M6061T6B0.750X01.f 500		7/18/2013	7/17/2013	12.0000	\$2.41	0.0000	0	\$28.90
	No		6061-T6 Bar .750 X f 1.50 m126351		12.0000	DES102		\$28.90	0.0000	0	
	6		M6061T6B1.000X04.f 000		7/18/2013	7/17/2013	48.0000	\$8.51	0.0000	0	\$408.27
	No		6061-T6 Bar 1.00 x f 4.00 m126351		48.0000	DES102		\$408.27	0.0000	0	

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID \ Vendor Name	VC-COP001 Thyssenkrupp Materials CA Ltd										
PO20531	7		M6061T6B1.000X06. f 000		7/18/2013	7/17/2013	12.0000	\$12.95	0.0000	0	\$155.36
CAD	No		6061T6 BAR 1.00 X f 6.00		12.0000	DESJ02		\$155.36	0.0000	0	
			m126351								
	8		M6061T6B1.000X12. f 000		7/18/2013	7/17/2013	12.0000	\$25.44	0.0000	0	\$305.30
No			6061-T6 Bar 1.00 x f 12.00		12.0000	DESJ02		\$305.30	0.0000	0	
			m126351								
	9		M6061T6B30000X01 f .500		7/18/2013	7/17/2013	12.0000	\$9.48	0.0000	0	\$113.81
No			6061-T6 Bar 3.00 x f 1.50		12.0000	DESJ02		\$113.81	0.0000	0	
			m126351								
	10		M6061T6B4.500X4.5 f 00		7/18/2013	7/17/2013	8.0000	\$45.64	0.0000	0	\$365.11
No			6061-T6 Aluminum Bar 4.500" X 4.500"		8.0000	DESJ02		\$365.11	0.0000	0	
			m126351								
	11		M6061T6B0.500X12. f 000		7/22/2013	7/17/2013	12.0000	\$10.69	0.0000	0	\$128.26
No			6061-T6 Bar .500 x f 12.00		12.0000	DESJ02		\$128.26	0.0000	0	
			m126351								
Total Received Quantity:											200.0000
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$1,734.07
Total Balance Due Quantity:											0.0000

# Q U O T A T I O N

No: PEC ST-585830

Quoted By:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 905-738-9033

Quoted To: ( 20115)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Quoted Ship To: ( 1)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Trm NET 30 DAYS/NET 30 JOURS Qtd 11Jul13 Qte Ref  
 Frt PREPAID Via FOB  
 Tel 613-632-9577 Fax 613-632-1053 Ctc CHANTAL  
 Slp STAN IVERS (905-532-1350)

## Q U O T A T I O N

QT No: PEC ST-585830

Test Certs: Chem-Y Phys-Y 1 Original copies with Shipment, 1 with Invoice

1 ALUMINUM FLAT BAR 6061-T6511 .375" x 1.00" X 144.0000" MATERIAL ENERGY & CAP SURCHG	36 FT @	3 PCS .8333 FT 25.0000 LOT	16 LBS 36 FT 30.00 25.00
2 ALUMINUM FLAT BAR 6061-T6511 .50" x 2.50" X 144.0000" MATERIAL	12 FT @	1 PCS 2.8500 FT	18 LBS 12 FT 34.20
3 ALUMINUM FLT BAR ECONOPLT 6061-T6511 .500" X 10.00" X 144.0000" MATERIAL	12 FT @	1 PCS 11.2417 FT	71 LBS 12 FT 134.90
4 ALUMINUM FLAT BAR 6061-T6511 .750" x 1.00" X 144.0000" MATERIAL	24 FT @	2 PCS 1.7417 FT	22 LBS 24 FT 41.80
5 ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" MATERIAL	12 FT @	1 PCS 2.5333 FT	16 LBS 12 FT 30.40
6 ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" MATERIAL	48 FT @	4 PCS 8.9458 FT	226 LBS 48 FT 429.40
7 ALUMINUM FLAT BAR 6061-T6511 1.00" x 6.00" X 144.0000" MATERIAL	12 FT @	1 PCS 13.6167 FT	86 LBS 12 FT 163.40
8 ALUMINUM FLT BAR ECONOPLT 6061-T6511 1.00" X 12.00" X 144.0000" MATERIAL	12 FT @	1 PCS 26.7583 FT	169 LBS 12 FT 321.10

Q U O T A T I O N

No: PEC ST-585830

Quoted By:

THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

Quoted To: ( 20115)  
DART AEROSPACE

Quoted Ship To: ( 1)  
DART AEROSPACE

Q U O T A T I O N

QT No: PEC ST-585830

9 ALUMINUM FLAT BAR 6061-T6511 1 PCS 63 LBS  
1.50" x 3.00" X 144.0000" 12 FT @ 9.9750 FT 119.70  
MATERIAL

10 ALUMINUM SQUARE BAR 6061-T6511 1 PCS 192 LBS  
4.50" X 96.0000" 8 FT

<<<----- SPECIFICATIONS ----->>>

Ga Tol + 0.0000 - 0.0000 Pc/Tag 1  
WthTol + 0.0000 - 0.0000 Wt/Skd  
LthTol + 0.1250 - 0.0000 Ty Pk  
MATERIAL 8 FT @ 48.0000 FT 384.00

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT  
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*

\*\* REFERENCED ON IT \*\*

Price in effect at time of shipment.

Price based on receipt of total order.

All weights are theoretical.

All orders are subject to credit approval.

\*\*\*\* TEL. 800-926-2600 \*\*\*\*

\*\*\* CUSTOMER PICK-UP HOURS \*\*\*

\*\*\* 9:00 AM TO 4:00 PM \*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL!!!! \* \*

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*

\*\*\*\*\*

\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE

ADDED TO EVERY ORDER.\*\*\*

\*\*\*\*\*

\*FOR OUR FULL SALES TERMS AND CONDITIONS, PLEASE

\*VISIT OUR WEBSITE: www.copperandbrass.com

\*\*\*\*\*

Order Totals: 10 Items 879 LBS

\*\*\*\*\*

Material Processing Freight Other Taxes ORDER AMT

1,688.90 25.00 222.80 1,936.70

\*\*\*\*\*

Taxes: ONHSTS 222.80 0.00 0.00 0.00

Sold By:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 905-738-9033

Sold To:    ( 20115 )  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Ship To:    (   1 )  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Trm NET 30 DAYS/NET 30 JOURS  
 Frt PREPAID  
 Con 96294  
 Slp STAN IVERS (905-532-1350)

Ord 11Jul13 Due15Jul13  
 Via VIM TRANSFER      FOB CONCORD  
 PO/Rel 20531  
 Tel 613-632-9577 Fax 613-632-1053

=====

S A L E S   A C K N O W L E D G M E N T      SO No PEC ST-586090

Test Certs: Chem Y Phys Y   1 Original copies with Shipment, 1 with Invoice

-----

1 ALUMINUM FLAT BAR 6061-T6511	3 PCS	16 LBS
.375" x 1.00" X 144.0000"		36 FT
MATERIAL	36 FT @ .8333 FT	30.00
ENERGY & CAP SURCHG	25.0000 LOT	25.00
-----		
2 ALUMINUM FLAT BAR 6061-T6511	1 PCS	18 LBS
.50" x 2.50" X 144.0000"		12 FT
MATERIAL	12 FT @ 2.8500 FT	34.20
-----		
3 ALUMINUM FLT BAR ECONOPLT 6061-T6511	1 PCS	71 LBS
.500" X 10.00" X 144.0000"		12 FT
MATERIAL	12 FT @ 11.2417 FT	134.90
-----		
4 ALUMINUM FLAT BAR 6061-T6511	2 PCS	22 LBS
.750" x 1.00" X 144.0000"		24 FT
MATERIAL	24 FT @ 1.7417 FT	41.80
-----		
5 ALUMINUM FLAT BAR 6061-T6511	1 PCS	16 LBS
.750" X 1.50" X 144.0000"		12 FT
MATERIAL	12 FT @ 2.5333 FT	30.40
-----		
6 ALUMINUM FLAT BAR 6061-T6511	4 PCS	226 LBS
1.00" x 4.00" X 144.0000"		48 FT
MATERIAL	48 FT @ 8.9458 FT	429.40
-----		
7 ALUMINUM FLAT BAR 6061-T6511	1 PCS	86 LBS
1.00" x 6.00" X 144.0000"		12 FT
MATERIAL	12 FT @ 13.6167 FT	163.40
-----		
8 ALUMINUM FLT BAR ECONOPLT 6061-T6511	1 PCS	169 LBS
1.00" X 12.00" X 144.0000"		12 FT
MATERIAL	12 FT @ 26.7583 FT	321.10
-----		
9 ALUMINUM FLAT BAR 6061-T6511	1 PCS	63 LBS
1.50" x 3.00" X 144.0000"		12 FT
MATERIAL	12 FT @ 9.9750 FT	119.70

Sold By:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

Ship To: ( 1)  
DART AEROSPACE

10 ALUMINUM SQUARE BAR 6061-T6511	1 PCS	192 LBS
4.50" X 96.0000"		8 FT

SPECIFICATIONS									
Ga Tol +	0.0000	-	0.0000	Pc/Tag	1				
WthTol +	0.0000	-	0.0000	Wt/Skd					
LthTol +	0.1250	-	0.0000	Ty	Pk				
MATERIAL					8 FT @	48.0000	FT		384.00

ATTN: CHANTAL/LINDA

**\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\***

\*\* REFERENCED ON IT \*\*

\*\* CUSTOMER PICK-UP HRS / 9:00 AM TO 4:00 PM \*\*

\*\*\* TEL. 800-926-2600 \*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL!!!! \*

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*

\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
ADDED TO EVERY ORDER.\*\*\*

\*\*\*\*\*

\*FOR OUR FULL SALES TERMS AND CONDITIONS, PLEASE

\*VISIT OUR WEBSITE: [www.copperandbrass.com](http://www.copperandbrass.com)

\*\*\*\*\*

Order Totals: 10 Items 879 LBS

\*\*\*\*\*

Material	Processing	Freight	Other	Taxes	ORDER AMT
1,688.90			25.00	222.80	1,936.70

\*\*\*\*\*

Taxes: ONHSTS 222.80

# B I L L O F L A D I N G

No: PEC 832058

Ship From:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

Ship Date 16Jul13 at 9:42 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: ( 20115)  
DART AEROSPACE  
1270 ABERDEEN ST  
HAWKESBURY, ON K6A 1K7

Ship To: ( 1)  
DART AEROSPACE  
1270 ABERDEEN ST  
HAWKESBURY, ON K6A 1K7  
Tel: 613-632-9577 Fax: 613-632-1053

## B I L L O F L A D I N G

1) Our Order PEC-586090- 1 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511  
.375" x 1.00" X 144.0000"

Heat Number  
21385265

Tag No  
198419

Quantity  
36 FT

PCS  
3

Wt LBS  
16

MTR

2) Our Order PEC-586090- 2 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511  
.50" x 2.50" X 144.0000"

Heat Number  
21288872

Tag No  
198420

Quantity  
12 FT

PCS  
1

Wt LBS  
17

MTR

3) Our Order PEC-586090- 3 Your PO # 20531

ALUMINUM FLT BAR ECONOPLT 6061-T6511  
.500" X 10.00" X 144.0000"

Heat Number  
Z00191031

Tag No  
198421

Quantity  
12 FT

PCS  
1

Wt LBS  
69

LINE 11 SNAPO

MTR

4) Our Order PEC-586090- 4 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511  
.750" x 1.00" X 144.0000"

Heat Number  
201308343

Tag No  
198422

Quantity  
24 FT

PCS  
2

Wt LBS  
23

MTR

5) Our Order PEC-586090- 5 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511  
.750" X 1.50" X 144.0000"

Heat Number  
201310405

Tag No  
198423

Quantity  
12 FT

PCS  
1

Wt LBS  
16

MTR

Page: 1 ....Continued

2-BDI'S

2013.7.17

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE  
RAPPORTEES IMMEDIATEMENT  
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER



SHIP FROM:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

B I L L O F L A D I N G  
No: PEC 832058  
Ship Date 16Jul13 at 9:42 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: (20115)  
DART AEROSPACE

Ship To: (1)  
DART AEROSPACE

B I L L O F L A D I N G

6) Our Order PEC-586090- 6 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511

1.00" x 4.00" X 144.0000"

Heat Number

201313249

Tag No

198424

Quantity

36 FT

PCS

3

Wt LBS

174

MTR

7) Our Order PEC-586090- 7 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511

1.00" x 6.00" X 144.0000"

Heat Number

201309168

Tag No

198425

Quantity

12 FT

PCS

1

Wt LBS

86

MTR

8) Our Order PEC-586090- 8 Your PO # 20531

ALUMINUM FLT BAR ECONOPLT 6061-T6511

1.00" X 12.00" X 144.0000"

Heat Number

Z00014042

Tag No

198426

Quantity

12 FT

PCS

1

Wt LBS

171

MTR

9) Our Order PEC-586090- 9 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511

1.50" x 3.00" X 144.0000"

Heat Number

201303343

Tag No

198427

Quantity

12 FT

PCS

1

Wt LBS

63

MTR

10) Our Order PEC-586090- 10 Your PO # 20531

ALUMINUM SQUARE BAR 6061-T6511

4.50" X 96.0000"

Heat Number

21382208

Tag No

198605

Quantity

8 FT

PCS

1

Wt LBS

192

MTR

TOTAL:

Tags  
10

PCS  
15

LBS  
827

Heat Number

\*\*\* Chemical Analysis \*\*\*

Page: 2 ....Continued

213717

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE  
RAPPORTEES IMMEDIATEMENT.  
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY.  
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

SHIP FROM:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

SHIP TO: ( 1 )  
DART AEROSPACE

B I L L O F L A D I N G  
No: PEC 832058  
Ship Date 16Jul13 at 9:42 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: ( 20115 )  
DART AEROSPACE

B I L L O F L A D I N G

201303343  
201308343  
201309168  
201310405  
201313249  
21288872  
21382208  
21385265  
Z00014042  
Z00191031

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT  
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*  
\*\* REFERENCED ON IT \*\*

TOTAL 2 BDLs G.W. 874 LBS

ITEMS (1-9) BDL  
ITEM (10) BDL

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA  
CONCORD, ONT.\* \*\*\* 9:00 AM TO 4:00 PM \*\*\*  
\*\*\*\* TEL. 800-926-2600 \*\*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL \*

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*

\*\*\*\*\*

\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
ADDED TO EVERY ORDER.\*\*\*

Page: 3 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE  
RAPPORTEES IMMEDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

RECU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

DATE

TVQ/GST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLAT BAR 6061-T6511

3.75" x 1.00" x 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PEC-832058-001

16Jul13  
Pg 1/2

**Sapa**

Sapa Industrial Extrusions  
53 POTTSVILLE STREET  
CRESSONA, PA  
17929-0187

Sapa Extrusions Inc., a Subsidiary of Sapa AB

Invoice To Customer

THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
ATTN: ACCOUNT PAYABLE

CONCORD, ON - L4K 5C6

Ship To Customer

THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD

CONCORD, ON - L4K 5C6

## Certified Inspection Report

Sales Order Number	Line No.	Customer P/O
1100600218	4	PEC-248184-4

Cart Number	Page
SAPA/60904	1 of 2
Cart Creation Date	Cart Print Date
07-MAY-13	07-MAY-13

Quantity Shipped	Unit	Date Shipped	Item Description	Specification
730	LB	07-MAY-13	Extruded Rectangular Bar 0.3125" x 1.000" W RA1	ASTM B221 REV 12A AMS-QQ-A-2008 REV 1997 ASME SB221 REV 09 UNSWA96061 REV
375X1			Marking CONTINUOUS:	

COMPOSITION NOTE: The values for Others Each and Others Total have met the limits as shown on this certified inspection report. Remainder is Aluminum.

Signature and Title

*William T. Martin, III*

William Martin III

Tech/Quality Manager

07-MAY-13

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal constituent in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Package Number	Lot Number	Quantity	UOM	Weight
G12 PKG1930220	21385255	138	PCS	736
				730

Alloy	Si		Fe		Cu		Mn		Mg		Cr		Zn	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
6061	0.40	0.80	—	0.70	0.15	0.40	—	0.15	0.80	1.20	0.04	0.35	—	0.25

# THYSSENKRUPP MATERIALS NA

PO/Rel 20531

## Certificate of Mill Test Results

BL PEC-832058-001

16Jul13  
Pg 2/2

**DART AEROSPACE**  
ALUMINUM FLAT BAR 6061-T6511  
375" x 1.00" x 144.0000"  
PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

**sapa**

Sapa Industrial Extrusions  
53 FORTVILLE STREET  
CRENSHAW, PA  
17929-0187

### Certified Inspection Report

Sales Order Number: 1100603218  
Line No.: 4  
Customer PO: PEC-248184-4

Cert Number: SAPA760904  
Page: 2 of 2  
Cert Creation Date: 07-MAY-13  
Cert Trial Date: 07-MAY-13

Alloy	T	Si	Fe	Mn	Other Each	Other Total
6061	Min	Max	Min	Max	Min	Max
	0.15	0.25	0.05	0.05	0.15	

#### Composition Results

Heat / Cast	Si	Fe	Cu	Mg	Mn	Zn	Ti	Al	Other Each	Other Total
3001698	0.72	0.26	0.25	0.05	0.03	0.06	0.02	0.02		

#### Mechanical Property - Test Limits

Test Type	UTS - L	UTS - L	EL. Elong
UTM	KSI	KSI	PER
Heat Temper	Min Value	Max Value	Min Value
6061	45.8	48.1	42.2
6061	45.8	48.1	42.2

#### Cert Notes

Products manufactured with a T6511 temper who meet T6 temper requirements.  
Yield strength has been determined by the 0.2% offset method.  
All Mill Finish Alloys produced at Sapa Extrusions comply with 0.4% Maximum Lead per RoHS, with the exception of 6063 alloy.  
In accordance with EN 10204 Inspection Certificate Type 3.1  
Metals in the USA or Other Qualified Countries as Defined by DEARS 225.672.1  
Made in USA

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLAT BAR 6061-T6511

50" x 2.50" x 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

*y*

BL PEC-832058-002

16Jul13  
Pg 1/3

## Certificate of Mill Test Results

**sapa**

Sapa Extrusions  
53 POTTSVILLE STREET  
CRESSONA, PA  
17929-0187

Sapa Extrusions Inc., a Subsidiary of Sapa AB

Invoice To Customer

THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
ATTN: ACCOUNT PAYABLE

CONCORD, ON L4K 5C6

Ship To Customer

THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD

CONCORD, ON L4K 5C6

### Certified Inspection Report

Sales Order Number	Line No.	Customer P/O	Cert Number	Page
1100398155	4	PEC-247872-4	SAPAS7768	1 of 3
			Cert Creation Date	Cert Trial Date
			02-MAY-13	02-MAY-13

Quantity Shipped	Unit	Date Shipped	Item Description	Specification
2397	LB	02-MAY-13	Estimated Rectangular Bar 0.500 TK x 2.500 W READ	ASTM B221 REV 12A AMS-QQ-A-2008 REV 1997 ASMESS221 REV 09 UNSA96001 REV
B/L		Item No.	144,000 IN/LN FIN M.M.H.L. W/F 1.47 F04 CS 2.5 (681/1051) MARKING CONTINUOUS;	
424721		Q0361828		
Delivery Id		Item No. Rev		
4422621				
Customer Part No.				
5X2.5				

COMPOSITION NOTE: The values for 'Others Facit' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

**Legal Statement**  
We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Signature And Title  
*William T. Martin, III*  
William Martin, III  
Tech/Quality Manager  
02-MAY-13

Package Number	Lot Number	Quantity	UOM	Weight
G12-PKGI839570	21288872	40	PCS	705
G12-PKGI928652	21391318	32	PCS	570
G12-PKGI928672	21391318	30	PCS	535
G12-PKGI928672	21391318	-	-	-
G12-PKGI934198	21397820	34	PCS	605
				599

Composition Limits

13/07/19

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLAT BAR 6061-T6511

50" x 2.50" x 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PBC-832058-002

16 Jul 13  
Pg 2/3

**sapa:**

Sapa Industrial Extrusions  
53 POTTSVILLE STREET  
CRESSONA, PA  
17929-0187

## Certified Inspection Report

Sales Order Number	Line No.	Customer P/O
1100598155	4	PBC-247872-4

Cert Number	Page
SAPA757768	2 of 3
Cert Creation Date	Cert Print Date
02-MAY-13	02-MAY-13

Alloy	Si	Mn	Fe		Cu	Mg		Al	C		Zn			
			Min	Max		Min	Max		Min	Max		Min	Max	
6061	0.40	0.80	—	0.70	0.15	0.40	—	0.15	0.80	1.20	0.04	0.35	—	0.25
Alloy	Ti		B		P		Other Each		Other Total					
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max				
6061	—	0.15	—	0.05	—	0.05	—	0.05	—	0.15				

### Composition Results

Heat / Cast	Si	Mn	P	Cu	Mg	Fe	Other Each	Other Total
3001736	0.62	0.27	0.23	0.04	0.92	0.06	0.02	0.02
Heat / Cast	Si	Mn	P	Cu	Mg	Fe	Other Each	Other Total
5030533	0.65	0.27	0.22	0.03	0.91	0.05	0.03	0.02
Heat / Cast	Si	Mn	P	Cu	Mg	Fe	Other Each	Other Total
5031246	0.66	0.24	0.22	0.03	0.91	0.05	0.02	0.02

### Mechanical Property - Test Limits

Test Type	UTS - L	TYS - L	EL 4D-Long
ASTM B221	KSI	KSI	PCT
Test Number	44.4	46.3	18.2
Test Type	UTS - L	TYS - L	EL 4D-Long
ASTM B221	KSI	KSI	PCT
Test Number	44.4	46.3	18.2
Test Type	UTS - L	TYS - L	EL 4D-Long
ASTM B221	KSI	KSI	PCT
Test Number	44.4	46.3	18.2

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511

50" x 2.50" x 144.0000"

PART NO.

P.O./Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PEC-832058-002

16Jul13  
Pg 3/3

**sapa**

Sapa Industrial Extensions  
33 POTTSVILLE STREET  
CRENSHAW, PA  
17929-0187

## Certified Inspection Report

Sales Order Number	Line No.	Customer P/O	Cert Number	Page
1100598155	4	PEC-247872-4	SAPA737768	3 of 3
			Cert Creation Date	Cert Print Date
			02-MAY-13	02-MAY-13

Temp	UTS - L	TYS - L	EL @ Long
6061-T6511	KS1	KS1	PCT
Test Temp: 6061-T6511	44.8	46.9	19.6
Test Temp: 6061-T6511	41.7	43.8	20.1
Test Temp: 6061-T6511	21.97829	4	

### Cert Notes

Products manufactured with a T6511 temper also meet T6 temper requirements.  
Yield strength has been determined by the 0.2% offset method.  
All Mill Finish Alloys produced at Sapa Extrusions comply with 0.4% Maximum Level per Roll5, with the exception of 6062 alloy.  
In accordance with EN 10204 Inspection Certificate Type 3.1  
Metel in the USA or Other Qualified Countries as Defined by DEARS 225.872.1  
Made in USA

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLT BAR ECONOPLT 6061-T6511

.509" X 10.00" X 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL PEC-832058-003

16Jul13

Signed by: 

Pg 1/1

**KAISER**  
**ALUMINUM**  
**FABRICATED PRODUCTS**

*Best in Class*

### CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
5205 KAISER DRIVE  
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER: PEC-249933-2		CUSTOMER PART NUMBER: W60/STK		PRODUCT DESCRIPTION: .500 X 10.000 PRECISION WIDE BAR	
KAISER ORDER NUMBER: 647403	LINE ITEM: 002	SHIP DATE: 07/05/2013	KAISER LOT NUMBER: Z00191031	ALLOY: 6061	TEMPER: T6511
WEIGHT SHIPPED: 1692.000 LB	QUANTITY: 24.000 PCS	B/L NUMBER: 606590	DIAM/DAF/THKNS: WIDTH:	LENGTH: 12.000 FT	
SHIP TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00191031	0001	1	47.8	43.7	13.5	RE 94	N/A	N/A
Z00191031	0001	2	46.5	42.7	13.2	RE 94	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
102765	.72	.29	.24	.09	.94	.09	.04	.02	.00	.00	.00	.01	.03

### Applicable Requirements:

ASTM-B221-13 STENCILED ASME-S3221 1998 SECT II AMS-QQ-A-200/8 97(R07) UNS#A96061  
(T6511 also conforms to T6-not applicable to other tempers)

### Miscellaneous Notes


MANUFACTURED IN USA MELTED IN USA

MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Timothy K. Fargo, Quality & Technology Manager



Plant Serial: 00096637

Kaiser Order Number: 647403

Line Item: 002



# THYSSENKRUPP MATERIALS NA

PO/Rel 20531

Certificate of Mill Test Results

BL PEC-832058-004

16Jul13  
Pg 1/1

**DART AEROSPACE**  
ALUMINUM FLAT BAR 6061-T6511  
.750" x 1.00" x 144.0000"  
PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

*[Signature]*



**SERVICE CENTER METALS**  
5850 Quality Way  
Prince George, VA 23875

## CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
175012	10

<b>BILL TO</b> ThyssenKrupp Materials NA	<b>MANIFEST NUMBER</b> 188759	<b>DIE NUMBER</b> RB0111	<b>DATE OF SHIPMENT</b> 4/30/2013
<b>SHIP TO</b> ThyssenKrupp Materials NA, Toronto	<b>CUSTOMER PO</b> PEC-247920	<b>ALLOY / TENSILE</b> 6061-T6511	<b>SALES PERSON</b> David Schroeder
<b>Quantity Certified</b> 1,143 lbs 108 pcs	<b>CUSTOMER PART NUMBER</b> RB0111	<b>DESCRIPTION</b> SCRB .750x1.000	

<b>CERTIFICATION</b> ASTM-B221-12a StencilCont
<b>SPECIFICATION</b> AMS-QQA-200/B - 1997

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

### Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
	2 201308343	4/27/13	min 53.00 max 54.00	min 49.80 max 51.00	min 12.85 max 14.45

*11/13/13*

### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others	Melt Source:
111823	6061	0.76	0.35	0.32	0.09	0.90	0.09	0.07	0.02	97.40	Total	United States of America

Print Date: 4/30/2013

Calvin J. Wiggins, Director of Quality & Technical Services

Rev. 9/23/11-LWS

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6S11  
750" X 1.50" X 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

BL PEC-832058-005

Certificate of Mill Test Results

16Jul13  
Pg 1/1



**SERVICE CENTER METALS**  
5850 Quality Way  
Prince George, VA 23875

## CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
176913	6

### BILL TO

ThyssenKrupp Materials NA

### SHIP TO

ThyssenKrupp Materials NA, Toronto

Quantity Certified

1,143 lbs

72 pcs

### MANIFEST NUMBER

191112

### DIE NUMBER

RB0113

### DATE OF SHIPMENT

5/23/2013

### CERTIFICATION

ASTM-B21-12a StencilCont

### SPECIFICATION

AMS-QQA-200/B-1997

### CUSTOMER PO

PEC-248562

### ALLOY/TEMPER

6061-T6S11

### SALESPERSON

David Schroeder

### CUSTOMER PART NUMBER

RB0113

### DESCRIPTION

SCRB .750X1.500

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

### Mechanical Properties

Tests Lot No.

201310405

### Test Date

5/22/13

### Ultimate Tensile Strength (KSI)

min 51.90

max 52.90

### Yield Strength (KSI)

min 47.00

max 50.00

### Percent Elongation

min 13.20

max 14.35

5/20/13

### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others Each	Total	Melt Source
051231	6061	0.77	0.35	0.30	0.10	0.87	0.10	0.05	0.02	97.44	0.05	0.15	United States of America

Print Date: 5/23/2013

Calvin J. Wiggins, Director of Quality & Technical Services

Rev. 8/23/11 - JMS

# THYSSENKRUPP MATERIALS NA

## Certificate of Mill Test Results

**DART AEROSPACE**  
ALUMINUM FLAT BAR 6061-T6511  
1.00" x 4.00" x 144.0000"  
PART NO.

P.O./Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

BL PEC-832058-006

16Jul13  
Pg 1/1



**SERVICE CENTER METALS**  
5850 Quality Way  
Prince George, VA 23875

### CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
179742	1

**BILL TO**  
ThyssenKrupp Materials NA  
SHIP TO  
ThyssenKrupp Materials NA, Toronto  
Quantity Certified 1,140 lbs 20 pcs

**MANIFEST NUMBER** 194603  
**DIE NUMBER** MRB1295  
**DATE OF SHIPMENT** 6/28/2013  
**CUSTOMER PO** PEC-249561  
**CUSTOMER PART NUMBER** MRB1795  
**SALES PERSON** David Schroeder

**CERTIFICATION**  
ASTM-B221-12a StencilCont  
SPECIFICATION  
AMS-QQA-200/8 - 1997

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

#### Mechanical Properties

**Tests** **Lot No.**  
6 201313249

Test Date	Ultimate Tensile Strength (KSI)		Yield Strength (KSI)		Percent Elongation	
	min	max	min	max	min	max
6/28/13	46.20	54.90	43.50	51.40	11.85	16.10

8/13/2019

#### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others		Melt Source:
											Each	Total	
0413184	6061	0.67	0.30	0.31	0.09	0.84	0.08	0.07	0.02	97.62	0.05	0.15	United States of America
0413201	6061	0.70	0.30	0.32	0.09	0.87	0.09	0.05	0.02	97.56	0.05	0.15	United States of America
0513087	6061	0.67	0.26	0.33	0.08	0.87	0.08	0.04	0.02	97.65	0.05	0.15	United States of America

Print Date: 6/28/2013

Calvin J. Wincans, Director of Quality & Technical Services

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLAT BAR 6061-T6511

1.00" x 6.00" x 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PEC-832058-007

16Jul13  
Pg 1/1



SERVICE CENTER METALS

5850 Quality Way  
Prince George, VA 23876

## CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
175662	6

BILL TO

ThyssenKrupp Materials NA

SHIP TO

ThyssenKrupp Materials NA, Toronto

Quantity Certified 1,778 lbs 21 pcs

MANIFEST NUMBER

189872

CUSTOMER PO

PEC-248148

CUSTOMER PART NUMBER

PL0130

DIE NUMBER

PL0130

ALLOY / TEMPER

6061-T6511

DESCRIPTION

PL 1000x6.000

DATE OF SHIPMENT

5/10/2013

SALESPERSON

David Schroeder

CERTIFICATION

ASTM-B221-12a StencilCont

SPECIFICATION

AMS-QQA-200/8 - 1997

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown.

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

### Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
1	201309168	5/8/13	min 49.60 max 49.60	min 44.90 max 44.90	min 14.55 max 14.55

5/10/13

### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others	Melt Source:
0413197	6061	0.74	0.36	0.31	0.10	0.86	0.11	0.08	0.02	97.42	0.05	0.15
0413201	6061	0.70	0.30	0.32	0.09	0.87	0.09	0.05	0.02	97.56	0.05	0.15
											United States of America	United States of America

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 5/10/2013

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLT BAR ECONOPLT 6061-T6511

1.00" X 12.00" X 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL PEC-832058-008

16Jul13

Pg 1/1

Signed by: 

**KAISER**  
**ALUMINUM**  
**FABRICATED PRODUCTS**

*Best in Class*

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
5205 KAISER DRIVE  
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER: PEC-249684-3		CUSTOMER PART NUMBER: ALREC01028		PRODUCT DESCRIPTION: 1.000 X 12.000 PRECISION WIDE BAR	
KAISER ORDER NUMBER: 646680	LINE ITEM: 003	SHIP DATE: 06/28/2013	KAISER LOT NUMBER: Z00014042	ALLOY: 6061	TEMPER: T6511B
WEIGHT SHIPPED: 1016.000 LB	QUANTITY: 6.000 PCS	B/L NUMBER: 606564	DIAM/DAF/THKNS: (Circled)	WIDTH:	LENGTH: 12.000 FT
SHIP TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00014042	0001	1	50.3	46.1	15.7	RE 91	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

*5/13/07/18*

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
102610	.75	.31	.28	.10	.95	.09	.06	.02	.00	.00	.00	.01	.03

### Applicable Requirements:

PER ASTM-B221-13, STENCILED ASME-SB221 1998 SECT II PER AMS-QQ-A-200/8 (1997) UNS# A96061 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

### Miscellaneous Notes

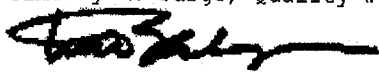
MANUFACTURED IN USA MELTED IN USA

MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Timothy K. Fargo, Quality & Technology Manager



Plant Serial: C0096203

Kaiser Order Number: 646680

Line Item: 003

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511

1.50" x 3.00" x 144.0000"

PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

BL PEC-832058-009

16Jul13  
Pg 1/1

## Certificate of Mill Test Results



**SERVICE CENTER METALS**  
5850 Quality Way  
Prince George, VA 23875

### CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
172124	2

BILL TO ThyssenKrupp Materials NA	MANIFEST NUMBER 185858	DIE NUMBER RB0140	DATE OF SHIPMENT 4/1/2013	CERTIFICATION ASTM-B221-12a StencilCont
SHIP TO ThyssenKrupp Materials NA, Toronto	CUSTOMER PO PEC-246883	ALLOY (TEMPER) 6061-T6511	SALES PERSON David Schroeder	SPECIFICATION AMS-QQA-2008 - 1997
Quantity Certified 1,536 lbs 24 pcs	CUSTOMER PART NUMBER RB0140	DESCRIPTION SCRB 1500X3.000		

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown.

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

#### Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
	2 201303343	2/20/13	min 49.10 max 50.40	min 47.90 max 48.20	min 15.15 max 15.40

8/13/07/19

#### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Each	Others Total	Melt Source:
0213088	6061	0.73	0.36	0.32	0.11	0.91	0.11	0.05	0.02	97.39	0.05	0.15	United States of America
0213090	6061	0.73	0.36	0.31	0.09	0.85	0.09	0.06	0.02	97.49	0.05	0.15	United States of America

Print Date: 4/1/2013

Calvin J. Wiggins, Director of Quality & Technical Services

# THYSSENKRUPP MATERIALS NA

PO/Rel 20531

DART AEROSPACE  
ALUMINUM SQUARE BAR 6061-T6511  
4.50" X 96.0000"  
PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

*William T. Martin, III*  
Certificate of Mill Test Results  
BL PEC-832058-010  
16Jul13  
Pg 1/2

**Sapa**

Sapa Industrial Extrusions  
53 POTTSVILLE STREET  
CRENSHAW, PA  
17923-0167

Sapa Extrusions Inc., a Subsidiary of Sapa AB

Invoice To Customer

THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
ATTN: ACCOUNT PAYABLE

CONCORD, ON - L4K5C6

Ship To Customer

THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD

CONCORD, ON - L4K5C6

## Certified Inspection Report

Sales Order Number	Line No.	Customer P/O	Cert Number	Page
1100602244	2	PEC-248106-002	SAPA737893	1 of 2
			Cert Creation Date	Cert Print Date
			02-MAY-13	02-MAY-13

Quantity Shipped	Unit	Date Shipped	Item Description	Specification
1150	LB	02-MAY-13	ACC-U-LINE Extended ACC-U-BAR	ASTM B221 RHY 12A
B/L		Item No.	1.500 TK ± 4.500 W.L. TK TOL +034/-000	IS-AUB REV AMS-QQ-A-2008 REV 1997
424743		003211227	W TOL +034/-000	AMS-QQ-A-2008 REV 1997
Delivery Id		Item No. Rev	SECT 350005	Specs 6061-T6511H, 6061-T6511 RHY
4425033			1.141000 IN LN	
Customer Part No.			FIN M-MILL	
4.55Q			W/F 23.993 F 1 CS 6.37	
			6061/T6511H	
			Marking CONTINUOUS	

### Applicable Specifications, Revisions and Exceptions

ACC-U-BAR

COMPOSITION NOTE: The values for "Others Each" and "Others Total" have met the limits as shown on this certified inspection report. Remainder is Aluminum.

Signature And Title

*William T. Martin, III*

William Martin III

02-MAY-13

Technical Manager

### Legal Statement

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

### Quantities per Lot/Packages

Package Number	Lot Number	Quantity	UOM	Weight
G12-PKG1921012	21362208	4	PCS	1157
				1150

### Composition Limits

Alloy	Si	Fe	Cu	Mn	Mg	Ce	Zn
	Min	Max	Min	Max	Min	Max	Min
6061	0.40	0.80	0.10	0.15	0.80	1.20	0.04
							0.35
							0.25

*8/3/13*

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE  
ALUMINUM SQUARE BAR 6061-T6511  
4.50" X 96.0000"  
PART NO.

PO/Rel 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

## Certificate of Mill Test Results

BL PEC-832058-010

16Jul13  
Pg 2/2

# sapa

Sapa Industrial Extrusions  
53 POTTSVILLE STREET  
CRESSONA, PA  
17929-0187

### Certified Inspection Report

Sales Order Number	110607244	Issue No.	2	Customer P/O	PEC-248106-002	Cert Number	SAPA737893	Page	2 of 2
						Cert Creation Date	02-MAY-13	Cert Print Date	02-MAY-13

Alloy	Temp	Min	Max	Min	Max	Min	Max	Min	Max	Others Total
6061	---	0.15	---	0.05	---	0.05	---	0.05	---	0.15

#### Composition Results

Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Pb	Others Each	Others Total
4030033	0.70	0.34	0.30	0.11	0.91	0.13	0.03	0.02	--	--	--	--
Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Pb	Others Each	Others Total
4030129	0.77	0.43	0.33	0.12	0.94	0.15	0.06	0.02	--	--	--	--

#### Mechanical Property - Test Limits

Test Type	UTS - L	YTS - L	EL 4D-Long
10M	---	---	---
Test Temp	---	---	---
Lot Number	---	---	---
76511H	55.7	55.7	12.2
2180208	55.7	52.2	12.2

#### Cert Notes

Products manufactured with a T6511 temper also meet T6 temper requirements.  
Yield strength has been determined by the 0.2% offset method.  
All Mill Finish Alloys produced at Sapa Extrusions comply with 0.4% Maximum Lead per Balis, with the exception of 6262 alloy.  
In accordance with EN 10204 Inspection Certificate Type 3.1  
Metall in the USA or Other Qualified Countries as Defined by DEARS 225.472.1  
Made in USA



## B I L L O F L A D I N G

No: PEC 832058

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 905-738-9033

Ship Date 16Jul13 at 9:42 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhcle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Ship To: ( 1)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7  
 Tel: 613-632-9577 Fax: 613-632-1053

## B I L L O F L A D I N G

1) Our Order PEC-586090- 1 Your PO # 20531  
 ALUMINUM FLAT BAR 6061-T6511  
 .375" x 1.00" X 144.0000"

Heat Number 21385265  
 Tag No 198419

Quantity 36 FT

PCS 3

Wt LBS 16

MTR

2) Our Order PEC-586090- 2 Your PO # 20531  
 ALUMINUM FLAT BAR 6061-T6511  
 .50" x 2.50" X 144.0000"

Heat Number 21288872  
 Tag No 198420

Quantity 12 FT

PCS 1

Wt LBS 17

MTR

3) Our Order PEC-586090- 3 Your PO # 20531  
 ALUMINUM FLT BAR ECONOPLT 6061-T6511  
 .500" X 10.00" X 144.0000"

Heat Number Z00191031  
 Tag No 198421

Quantity 12 FT

PCS 1

Wt LBS 69

MTR

4) Our Order PEC-586090- 4 Your PO # 20531  
 ALUMINUM FLAT BAR 6061-T6511  
 .750" x 1.00" X 144.0000"

Heat Number 201308343  
 Tag No 198422

Quantity 24 FT

PCS 2

Wt LBS 23

MTR

5) Our Order PEC-586090- 5 Your PO # 20531  
 ALUMINUM FLAT BAR 6061-T6511  
 .750" X 1.50" X 144.0000"

Heat Number 201310405  
 Tag No 198423

Quantity 12 FT

PCS 1

Wt LBS 16

MTR

Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

## B I L L O F L A D I N G

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 905-738-9033

No: PEC 832058  
 Ship Date 16Jul13 at 9:42 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhcle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115)  
 DART AEROSPACE

Ship To: ( 1)  
 DART AEROSPACE

## B I L L O F L A D I N G

6) Our Order PEC-586090- 6 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511

1.00" x 4.00" X 144.0000"

Heat Number

201313249

Tag No

198424

Quantity

36 FT

PCS

3

Wt LBS

174

MTR

7) Our Order PEC-586090- 7 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511

1.00" x 6.00" X 144.0000"

Heat Number

201309168

Tag No

198425

Quantity

12 FT

PCS

1

Wt LBS

86

MTR

8) Our Order PEC-586090- 8 Your PO # 20531

ALUMINUM FLT BAR ECONOPLT 6061-T6511

1.00" X 12.00" X 144.0000"

Heat Number

Z00014042

Tag No

198426

Quantity

12 FT

PCS

1

Wt LBS

171

MTR

9) Our Order PEC-586090- 9 Your PO # 20531

ALUMINUM FLAT BAR 6061-T6511

1.50" x 3.00" X 144.0000"

Heat Number

201303343

Tag No

198427

Quantity

12 FT

PCS

1

Wt LBS

63

MTR

10) Our Order PEC-586090- 10 Your PO # 20531

ALUMINUM SQUARE BAR 6061-T6511

4.50" X 96.0000"

Heat Number

21382208

Tag No

198605

Quantity

8 FT

PCS

1

Wt LBS

192

MTR

TOTAL: Tags 10 PCS 15 LBS 827

Heat Number \*\*\* Chemical Analysis \*\*\*

Page: 2 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT.  
 ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY.  
 RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

SHIP FROM:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 905-738-9033

Ship To: ( 1 )  
 DART AEROSPACE

No: PEC 832058  
 Ship Date 16Jul13 at 9:42 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhcle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115 )  
 DART AEROSPACE

=====

B I L L O F L A D I N G

201303343  
 201308343  
 201309168  
 201310405  
 201313249  
 21288872  
 21382208  
 21385265  
 Z00014042  
 Z00191031

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT  
 WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
 TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*  
 \*\* REFERENCED ON IT \*\*

TOTAL 2 BDLs G.W. 874 LBS

ITEMS (1-9) BDL  
 ITEM (10) BDL

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA  
 CONCORD, ONT.\* \*\*\* 9:00 AM TO 4:00 PM \*\*\*

\*\*\*\* TEL. 800-926-2600 \*\*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL \*

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*

\*\*\*\*\*

\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
 ADDED TO EVERY ORDER.\*\*\*

Page: 3 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE  
 RAPPORTEES IMMEDIATEMENT  
 ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
 RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

# THYSSENKRUPP MATERIALS NA

**DART AEROSPACE**  
ALUMINUM PLAT BAR 6061-T6511  
375" x 1.00" x 144.0000"  
PART NO.

PO/Rel 20531

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

Signed by:

*[Signature]*

**Certificate of Mill Test Results**  
BL PBC-832058-001  
16Jul13  
Pg 1/2

**SAPPA**  
Sapa Industrial Extensions  
53 POTTSVILLE STREET  
CRISSONA, PA  
17929-4187

Sapa Extrusion Inc., a Subsidiary of Sapa AB

Invoice To Customer  
THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
ATTN: ACCOUNT PAYABLE  
CONCORD, ON - L4K 5G6  
Ship To Customer  
THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
CONCORD, ON - L4K5G6

## Certified Inspection Report

Sales Order Number	Line No.	Customer POC	Cart Number	Page
110060218	4	TEC-248184-4	SAP X760904	1 of 2
			Cart Creation Date	Cart Print Date
			07-MAY-13	07-MAY-13

Quantity Shipped	Unit Shipped	Item Description	Specification
730	LB	07-MAY-13	ASTM B221 REV 12A
Del.		Item No.	AMS QQ-A-2006 REV 1997
428/22		Q03641550	ASMESEB221 REV 09
Delivery Id		Item No. Rev	UNSHAS96061 REV
4424388			W/F 0.441 P 06 CS 1.1
Customer/Part No.			Marking CONTINUOUS
375X1			

COMPOSITION NOTE: The values for 'Others Beil' and 'Others Total' have met the limits as shown on this certified inspection report. Recycler's Aluminum.

**Legal Statement**  
We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Signature And Title  
*William Martin III*  
William Martin III  
Tech/Quality Manager  
07-MAY-13

Quantities per Lot / Packages		Lot Number		Weight	
Package Number	Quantity	Lot No.	PCS	Gross	Net
G12 PBC1930230	138	2153285	730	730	

Composition Limits											
	Si	Fe	Mn	Cu	Mg	Mo	Cr	Al	Others Beil	Others Total	
Min	0.40	0.80	0.70	0.15	0.50	0.15	0.50	1.20	0.35	0.25	
Max	0.40	0.80	0.70	0.15	0.50	0.15	0.50	1.20	0.35	0.25	

**Certificate of Mill Test Results**  
BL PEC-832058-001  
16Jul13  
pg 2/2

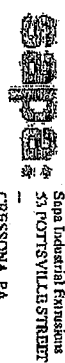
Pg 2/2

**Profile in USA**

**THYSSENKRUPP MATERIALS NA**  
**DART AEROSPACE**  
ALUMINUM PLATE BAR 6061-T6511  
50" x 2.50" x 144.0000"  
PART NO.

P/O Ref 20531  
We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

Certificate of Mill Test Results  
BL PBC-832058-002  
16Jul13  
Pg 1/3



Santa Industrial Enterprises  
53 POTTSVILLE STREET  
CRENSHAW, PA  
17929-0187

Saga Extrusions Inc., a Subsidiary of Saga AB  
Invoice To Customer  
THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
ATTN: ACCOUNT PAYABLE  
CONCORD, ON - L4K 5G6  
Ship To Customer  
THYSSENKRUPP MATERIALS NA INC  
2821 LANGSTAFF ROAD  
CONCORD, ON - L4K 5G6

**Certified Inspection Report**

Order Number	Line No.	Customer TPO	Cert Number	Page
1100598155	4	PEC-247872-4	SAPAT5768	1 of 3
		02-MAY-13	Cert Creation Date	Cert Final Date
			02-MAY-13	02-MAY-13

Quantity Shipped	Unit	Date Shipped	Item Description	Specification
2357	LB	02-MAY-13	Extended Reciprocating Bar 0.500 TK x 2.500 W RAD	ASTM B221 REV 12A AMS-QQ-A-2008 REV 1997 UNS98061 REV 05
424721		Item No.	144.000 IN LN FIN M-MILL W/F 1.47 F 04 CS 2.5	
Delivery Id		Item No. Rev	666176511	
4423621			Marking CONTINUOUS	
CHARGE REPORT NO.				
572.5				

COMPOSITION NOTE: The values for 'Others Flat' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

**Sign-off Statement**  
We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and used in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material meet the composition and mechanical properties shown on the face of this certification. Also, note that recovery is not a normal characteristic in aluminum alloys and neither it nor any of its components are used in the manufacture of our product. This certification is not to be reproduced in printed form without prior written approval of our Quality Assurance Dept.

Signature And Title  
*William Mearls III*  
William Mearls III  
Tech/Quality Manager  
02-MAY-13

Quantity per Lot / Package	Lot Number	Quantity	Unit	Weight	Volume
G12-PRG1830570	2128872	40	PCS	711	705
G12-PRG1928652		32	PCS	570	564
G12-PRG1928672	21391318	30	PCS	535	530
G12-PRG1928672	21391318				
G12-PRG1934198	21397839	34	PCS	605	599

Composition Limits

**DART AEROSPACE**

PO/Rei 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

**Signed by:**

## Certificate of Mill Test Results

BL PEG-832058-002

16Jul13  
Pg 2/3



# Certified Inspection Report

Sales Order Number	Customer P/O
1100598155	PEC-247872-4
Line No.	
4	

Cert Number	Page
SAPR125768	Page 2 of 3
Cert Creation Date	Cert Print Date
02-MAY-13	02-MAY-13

[illegible]

### Composition Results

[illegible]

### Mechanical Property - Test Limits

[illegible]

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE  
ALUMINUM PLAT BAR 6061-T6511  
30" x 2.50" x 144.0000"  
PART NO.

P/O Ref 20831  
We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

Signed by: \_\_\_\_\_

Certificate of Mill Test Results  
BL PBC-832058-002  
16Jul13  
Pg 3/3



Sapa Industrial Expansion  
33 POTTSVILLE STREET  
CRENSHAW, PA  
17929-0187

## Certified Inspection Report

Sales Order Number	Line No.	Customer E/O
1100598155	4	PEC-247872-4

Cert Number	Page
SAPPA757768	3 of 3
Cert Creation Date	Cert Issue Date
02-MAY-13	02-MAY-13

		UTS - L	TVS - L	EL 40-Lang
		XSI	KSI	PGI
75511	2107839	4	44.8	60.9
			41.7	43.8
				19.6
				24.1

**Cert Notes:**  
Products manufactured with a 75511 temper also meet T6 temper requirements.  
Yield strength has been determined by the 0.2% offset method.  
All Mill Finish Alloys produced in Sapa Extrusions comply with U.S. Aluminum Level per B215, with the exception of 6062 alloy.  
In accordance with EN 10204 Inspection Certificate Type 3.1  
Metall in the USA or Other Qualified Countries as Defined by DEAR 325.872.1  
Made in USA



# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLT BAR ECONOPLT 6061-T6511  
.500" X 10.00" X 14.0000"  
PART NO.

PO/Rel 20531

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL PBC-832058-003

16Jul13

Signed by: 

Pg 1/1

**KAISER**  
**ALUMINUM**  
FABRICATED PRODUCTS

*Best in Class*

### CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
5205 KAISER DRIVE  
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER: PEC-249933-2		CUSTOMER PART NUMBER: W60/STK		PRODUCT DESCRIPTION: .500 X 10.000 PRECISION WIDE BAR	
KAISER ORDER NUMBER: 647403	LINE ITEM: 002	SHIP DATE: 07/05/2013	KAISER LOT NUMBER: Z00191031	ALLOY: 6061	TEMPER: T6511
WEIGHT SHIPPED: 1692.000 LB	QUANTITY: 24.000 PCS	B/L NUMBER: 606590	DIAM/DA/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO:  THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO:  THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00191031	0001	1	47.8	43.7	13.5	RE 94	N/A	N/A
Z00191031	0001	2	46.5	42.7	13.2	RE 94	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.03	NA	NA	NA	0.00	0.00
102765	.72	.29	.24	.09	.94	.09	.04	.02	.00	.00	.00	.01	.03

### Applicable Requirements:

ASTM-B221-13 STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 97(R07) UNS#A96061  
(T6511 also conforms to T6-not applicable to other tempers)

### Miscellaneous Notes

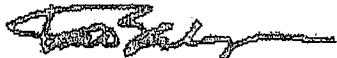
MANUFACTURED IN USA MELTED IN USA

MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Timothy K. Fargo, Quality & Technology Manager



Plant Serial: 00096637  
Kaiser Order Number: 647403  
Line Item: 002

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE  
ALUMINUM EXTRUDED BAR 6061-T6S11  
750" x 1.00" x 144,0000"  
PART NO.

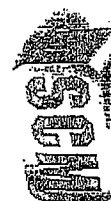
P/O Ref 20531

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

Signed by:

*[Signature]*

Certificate of Mill Test Results  
BL PEC-832058-004  
160113  
Pg 1/1



SERVICE CENTER METALS  
5850 Quality Way  
Prince George, VA 23875

## CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

COG ORDER NUMBER	ITEM
175012	10

BILL TO	MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT
ThyssenKrupp Materials NA	188759	RB0111	4/30/2013
SHIP TO	CUSTOMER PO	ALLOY / TEMPER	SALES PERSON
ThyssenKrupp Materials NA, Toronto	PEC-247920	6061-T6S11	David Schroeder
Quantity Certified	CUSTOMER PART NUMBER	DESCRIPTION	
1,143 lbs 108 pcs	RB0111	SCRB 750x1.000	

CERTIFICATION
ASTM-B221-12a StencilCont
SPECIFICATION
AMS-QQA-200/8 - 1997

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

Items produced and certified as 6061-T6S11 also meet the requirements of 6061-T6

### Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
	2	201308343	min 53.00 max 54.00	min 49.80 max 51.00	min 12.85 max 14.45

### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others	Melt Source:
111823	6061	0.76	0.35	0.32	0.09	0.80	0.09	0.07	0.02	97.40	Total 0.05	United States of America

Print Date: 4/30/2013

*[Signature]*

Calvin J. McQuinn, Director of Quality & Technical Services

**THYSSENKRUPP MATERIALS NA**  
**DART AEROSPACE**  
 ALUMINUM RAIL BAR 6061-T6511  
 .750" X 1.50" X 144.0000"  
 PART NO.

PO/REL 20531

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: \_\_\_\_\_  
 Attn: \_\_\_\_\_

**Certificate of Mill Test Results**  
 BL PEC-832058-005  
 16Jul13  
 Pg 1/1



**SERVICE CENTER METALS**  
 5850 Quality Way  
 Prince George, VA 23875

**CERTIFIED INSPECTION REPORT AND TEST RESULTS  
 FOR EXTRUDED PRODUCTS**

OUR ORDER NUMBER	ITEM
176913	6

BILL TO  
 ThyssenKrupp Materials NA  
 Ship TO  
 ThyssenKrupp Materials NA, Toronto  
 Quantity Certified 1,143 lbs 72 pcs

MANIFEST NUMBER 191112  
 CUSTOMER PO PEC-248662  
 CUSTOMER PART NUMBER RB0113  
 DIE NUMBER RB0113  
 ALLOY / TEMPER 6061-T6611  
 DATE OF SHIPMENT 5/23/2013  
 SALESPERSON David Schroeder  
 DESCRIPTION SCRB .750x1.500

CERTIFICATION  
 ASTM-B221-12a StencilCont  
 SPECIFICATION  
 AMS-QQA-200/8 - 1997

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

**Mechanical Properties**

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
4	201310405	5/22/13	min 51.90 max 52.90	min 47.00 max 50.00	min 13.20 max 14.35

**Chemical Composition for Aluminum Alloy 6061**

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	II	AL	Each	Total	Others	Melt Source:
051231	6061	0.77	0.35	0.30	0.10	0.87	0.10	0.05	0.02	97.44	0.05	0.15		United States of America

Print Date: 5/23/2013

*John J. Higgins*

John J. Higgins, Director of Quality & Technical Services

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM EXTRUDED BAR 6061-T6511  
1.00" x 4.00" x 144.0000"  
PART NO.

PO/REL 20531

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

Signed by:

*[Signature]*

Certificate of Mill Test Results  
BL PEC-832058-006  
16Jul13  
Pg 1/1



**SERVICE CENTER METALS**  
5850 Quality Way  
Prince George, VA 23875

## CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
179742	1

BELTD  
ThyssenKrupp Materials NA  
SHIP TO  
ThyssenKrupp Materials NA, Toronto  
Quantity Certified 1,140 lbs 20 pcs

MANIFEST NUMBER 194603  
DIE NUMBER MRB1795  
CUSTOMER NO. 6061-T6511  
CUSTOMER PART NUMBER MRB1795  
DESCRIPTION MQRB 1.000x4.000

CERTIFICATION  
ASTM-B221-12a Stencil Cont  
SPECIFICATION  
AMS-QQA-2008 - 1997

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown.

Items produced and certified as 6061-T6511  
also meet the requirements of 6061-T6

### Mechanical Properties

Tests Lot No.

6 201313249

Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
6/28/13	min 46.20 max 54.90	min 43.50 max 51.40	min 11.85 max 16.10

### Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others	Total	Melt Source
0413184	6061	0.67	0.30	0.31	0.09	0.84	0.08	0.07	0.02	97.62	0.05	0.15	United States of America
0413201	6061	0.70	0.30	0.32	0.09	0.87	0.09	0.05	0.02	97.56	0.05	0.15	United States of America
0513087	6061	0.67	0.26	0.33	0.08	0.87	0.08	0.04	0.02	97.65	0.05	0.15	United States of America

Print Date: 6/28/2013

Calvin J. Miccatis, Director of Quality & Technical Services

Rev. 02/11-1/13

**THYSSENKRUPP MATERIALS NA**  
**DART AEROSPACE**  
 ALUMINUM PLAT BAR 6061-T6511  
 1.00" x 6.00" x 144.0000"  
 PART NO.

PO/Rel 20531  
 We certify that this is a true copy of the report  
 furnished by the producer of the metal, or data  
 resulting from tests made in approved labs.

Signed by:                     

Certificate of Mill Test Results  
 BL PEC-832058-007  
 16Jul13  
 Pg 1/1



**SERVICE CENTER METALS**  
 5850 Quality Way  
 Prince George, VA 23875

**CERTIFIED INSPECTION REPORT AND TEST RESULTS**  
**FOR EXTRUDED PRODUCTS**

CUR ORDER NUMBER	ITEM
175662	6

BILL TO	MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
ThyssenKrupp Materials NA	189872	PL0130	5/10/2013	ASTM-B221-12a StencilCont
SHIP TO	CUSTOMER PO	ALLOY/TEMPER	SALESPERSON	SPECIFICATION
ThyssenKrupp Materials NA, Toronto	PEC-248148	6061-T6511	David Schroeder	AMS-QQA-200/8 - 1997
Quantity Certified	CUSTOMER PART NUMBER	DESCRIPTION		
1,778 lbs	PL0130	PL 1.000x6.000		

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown.

Items produced and certified as 6061-T6511  
 also meet the requirements of 6061-T6

**Mechanical Properties**

Test	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
1	201309168	5/8/13	min 49.60 max 49.60	min 44.90 max 44.90	min 14.55 max 14.55

**Chemical Composition for Aluminum Alloy 6061**

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Each	Others	Total	Melt Source:
0413197	6061	0.74	0.36	0.31	0.10	0.86	0.11	0.08	0.02	97.42	0.06	0.15		United States of America
0413201	6061	0.70	0.30	0.32	0.09	0.87	0.09	0.05	0.02	97.56	0.05	0.15		United States of America

Print Date: 5/10/2013

*Calvin J. Wiggins*

Calvin J. Wiggins, Director of Quality & Technical Services

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLT BAR ECONOFLT 6061-T6511

1.00" X 12.00" X 144.0000"

PART NO.

PO/Ref 20531

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL PEC-832058-008

16Jul13

Signed by: 

Pg 1/1

**KAISER**  
**ALUMINUM**  
FABRICATED PRODUCTS

*Best in Class*

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
5205 KAISER DRIVE  
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER: PEC-249684-3		CUSTOMER PART NUMBER: ALREC01028		PRODUCT DESCRIPTION: 1.000 X 12.000 PRECISION WIDE BAR	
KAISER ORDER NUMBER: 646680	LINE ITEM: 003	SHIP DATE: 06/28/2013	KAISER LOT NUMBER: Z00014042	ALLOY: 6061	TEMPER: T6511B
WEIGHT SHIPPED: 1016.000 LB	QUANTITY: 6.000 PCS	S/L NUMBER: 606564	DIA/DIAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO:  THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO:  THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00014042	0031	1	50.3	46.1	15.7	RE 91	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zr	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
102610	.75	.31	.28	.10	.95	.09	.06	.02	.00	.00	.00	.01	.03

### Applicable Requirements:

PER ASTM-B221-13, STENCILED ASME-SB221 1998 SECT II PER AMS-QQ-A-200/8 (1997) UNS# A96061. MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

### Miscellaneous Notes

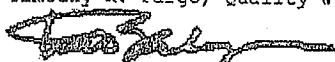
MANUFACTURED IN USA MELTED IN USA

MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Timothy K. Fargo, Quality & Technology Manager



Plant Serial: C0096203

Kaiser Order Number: 646680

Line Item: 003

Page 1 of 1

**THYSSENKRUPP MATERIALS NA**  
**DART AEROSPACE**  
ALUMINUM PLAT BAR 6061-T6511  
1.50" x 3.00" x 144.0000"  
PART NO.

PO/Rel 20531  
We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

Certificate of Mill Test Results  
BL PBC-832058-009  
16Jul13  
Pg 1/1



**SERVICE CENTER METALS**  
5850 Quality Way  
Prince George, VA 23875

**CERTIFIED INSPECTION REPORT AND TEST RESULTS**  
**FOR EXTRUDED PRODUCTS**

OUR ORDER NUMBER	ITEM
172424	2

BILL TO	MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
ThyssenKrupp Materials NA	185858	RB0140	4/1/2013	ASTM-B221-12a StencilCont
SHIP TO	CUSTOMER NO	ALLOY/TEMPER	SALES PERSON	SPECIFICATION
ThyssenKrupp Materials NA, Toronto	PEC-246883	6061-T6511	David Schroeder	AMS-QQA-2008 - 1997
Quantity Certified	1,536 lbs	24 pcs	CUSTOMER PART NUMBER	DESCRIPTION
			RB0140	SCRB 1.500X3.000

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

Mechanical Properties		Test Date		Ultimate Tensile Strength (KSI)		Yield Strength (KSI)		Percent Elongation	
Tests	Lot No.			min	max	min	max	min	max
2	201303343		2/20/13	49.10	50.40	47.90	48.20	15.15	15.40

**Chemical Composition for Aluminum Alloy 6061**

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others		Melt Source:
											Each	Total	
0213088	6061	0.73	0.36	0.32	0.11	0.91	0.11	0.05	0.02	97.39	0.05	0.15	United States of America
0213090	6061	0.73	0.36	0.31	0.09	0.85	0.09	0.06	0.02	97.49	0.05	0.15	United States of America

Print Date: 4/1/2013

Calvin J. Wiggalls, Director of Quality & Technical Services

# THYSSENKRUPP MATERIALS NA

## DART AEROSPACE

ALUMINUM SQUARE BAR 6061-T6511  
4.50" X 96.0000"  
PART NO.

PO/Rel 20531  
We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results  
BL PFC-932058-010  
16Jul13  
Pg 1/2

**SAPA**  
Sapa Industrial Extrusions  
33 POTTSVIL L.B. STREET  
CRANFORD, PA  
17929-0187

Sapa Extrusions Inc., a subsidiary of Sapa AB  
In order To Customer  
THYSSENKRUPP MATERIALS NA INC  
2821 LANCASTER ROAD  
ATTN: ACCOUNT PAYABLE  
CONCORD, ON - L4K 5G6  
Ship To Customer  
THYSSENKRUPP MATERIALS NA INC  
2821 LANCASTER ROAD  
CONCORD, ON - L4K 5G6

### Certified Inspection Report

Sales Order Number 110660264	Line No. 2	Customer PO PFC-248106-002	Cert Number SAPAT57899	Page 1 of 2
Quantity Shipped 1130 LB	Date Shipped 02-MAY-13	Item No. 009211227	Cert Creation Date 02-MAY-13	
Item Description ACC-U-BAR Extended ACC-U-BAR 4.500 TR x 4.500 W TR TOL +0.034/-0.000 W TOL +0.034/-0.000 SECT 550005 1.041000 IN LN FIN N-METL W/F 23.993 F 1 CS 6.37 066176511H Matching CONTINUOUS	Specimen ASTM B221 REV 12A 19-AUB REV AAR-QQ-A-2008 REV 1997 Mater 6061-T6511H, 6061-T6511 REV			
Customer Part No. 4.500				

Applicable Specifications, Revisions and Exceptions

ACC-U-BAR  
COMPOSITION NOTE: The values for "Others Fixed" and "Others Total" have met the limits as shown on this certified inspection report. Remainder is Aluminum.

**Legal Statement**  
We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that reciprocity is not a formal commitment in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Signature and Title  
*William T. Martin, III*  
William Martin III  
Tech/Quality Manager  
02-MAY-13

Quantities per Lot / Packages	Lot Number	Quantity	PCS	Weight
Package Number G12-PR01921012	21362208	4	1137	1130

Composition Limits											
Alloy	Si	Mn	Pb	Fe	Cu	Mg	Cr	Zn	Ni	As	Se
6061	0.40	0.80	0.10	0.15	0.15	1.30	0.04	0.35	0.25		



Doc No. 158348 indexed 7May13 by slssupl